Transforming the Green Deal: How to Bring Sustainability Requirements Closer to Reality?

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Climate change and dealing with it is undoubtedly one of the greatest challenges of our time. From an analytical perspective, it can be described as a negative externality – a situation in which party A does not bear the full costs of its actions and instead passes them on to party B. In economic theory, opinions certainly differ on the form of the solution, but there is a majority consensus on the need to address this problem. The role of economists in this challenge, rather than being in denial, should be to develop the most effective implementation of a solution that takes into account all the trade-offs as well as the stakeholders involved. In layman's terms, that is, to choose the right solution.

In the European Union (EU), the European Commission has decided that the right solution will take the form of central regulation and dirigisme. However, based on previous efforts at conservation and economic research, there is good reason to believe that central regulation is not the right way forward. As the work of economist F. A. Hayek shows[1], this form of regulation will inherently neglect local specificities, as it is unable to collect and then evaluate the amount of information needed to achieve optimal results. Furthermore, in the field of the environment specifically, Elinor Ostrom suggests[2] that in some cases the optimal regulation could only be self-regulation, which can only be achieved through decentralization or polycentric governance.

In its report on the Green Deal, the European Commission states that the transformation must take into account all relevant aspects and their interconnectedness – from the climate to the landscape to the social[3]. However, the starting line in this process is not the same for all. While the Western countries can draw on their higher economic development, which goes hand in hand with the pursuit of greater environmental protection[4], Eastern countries – such as the Visegrad Four countries (V4) – are in a very different position. Because

> MORE FLEXIBILITY IN THE EXECUTION OF THE GREEN TRANSFORMATION WOULD ENABLE CEE COUNTRIES TO CATCH UP BETTER WITH WESTERN ECONOMICS – IN BOTH ENVIRONMENTAL AND SOCIAL ASPECTS

[1] Hayek, F. A. (1946) "The Use of Knowledge in Society", [in]: *The American Economic Review*, Vol. 35(4), pp. 519-530.

[2] Ostrom, E. (2015) *Governing the Commons*, Cambridge: Cambridge University Press.

[3] European Environment Agency (2019) *The European Green Deal*. Available [online]: https://www.eea.europa.eu/policy-documents/com-2019-640-final

[4] Grossman, G. M. and A. B. Krueger (1995) "Economic Growth and the Environment", [in]: *The Quarterly Journal of Economics*, Vol. 110(2), pp. 353-377.

of the past communist regime, which had a negative impact not only on their economic development, but also on the quality of the environment[5], it will be much more difficult for these states to meet the same targets as the more developed Western economies – at least if this transformation aims to be in line with the social aspect as well.

Decentralization and regional governance are once again proving to be the best possible solution to this problem, as the key components needed for the successful transformation will differ due to the above-mentioned inequalities in economic development. For example, emission reduction targets could be more relatively distributed among countries, according to their economic development and other macroeconomic indicators, as Eastern economies are on a different starting line than Western ones in this respect. Therefore, more flexibility in the execution of the green transformation would enable CEE countries to catch up better with Western economics – in both environmental and social aspects.

YOUNGER SIBLINGS FROM THE CEE

If one compares the five founding states of the EU (Germany, Belgium, France, the Netherlands, and Italy), i.e., a group of states that can be described as 'prosperous Western economies' and also one of the main initiators of green transformation (a correlation that can be explained by the Kuznets environmental curve), with the less wealthy but dynamically developing V4 states, it can be clearly concluded that the opportunities for the green transformation of these states are structurally different [See: Figure 1][6].

> IN ONE OF THE KEY AREAS OF THE GREEN DEAL (ENERGY), THERE ARE RELATIVELY LARGE DIFFERENCES EVEN AMONG THE CEE COUNTRIES THEMSELVES

Moreover, one may also notice the different level of the compared economies in the aspect of competitiveness, ranked by the Global Competitiveness Index over the last five years [See: Figure 2]. The V4 countries are mostly ranked in the top forty or worse. The only exception is the Czech Republic, which is steadily moving towards the top thirty. However, most of the other countries compared are ranked in the top twenty or better.

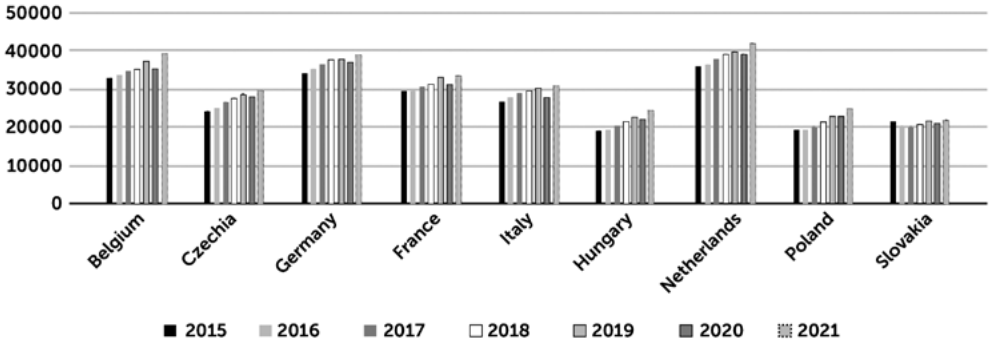
Furthermore, specialized literature focused on this economic aspect also reveals[7] that the V4 countries such as Slovakia, the Czech Republic, and Hungary belong among one of the most open economies in Europe, a fact that helps them develop

[5] https://www.nationalreview.com/magazine/2019/06/03/socialism-is-bad-for-the-environment/

[6] As we can observe in Figure 1, which shows GDP per capita over the last five years, the V4 states occupy the last four places among the countries compared.

[7] Ivanova, E. and M. Cepel (2018) "The Impact of Innovation Performance on the Competitiveness of the Visegrad 4 Countries", [in]: *Journal of Competitiveness*, Vol. 10(1), pp. 54-72.

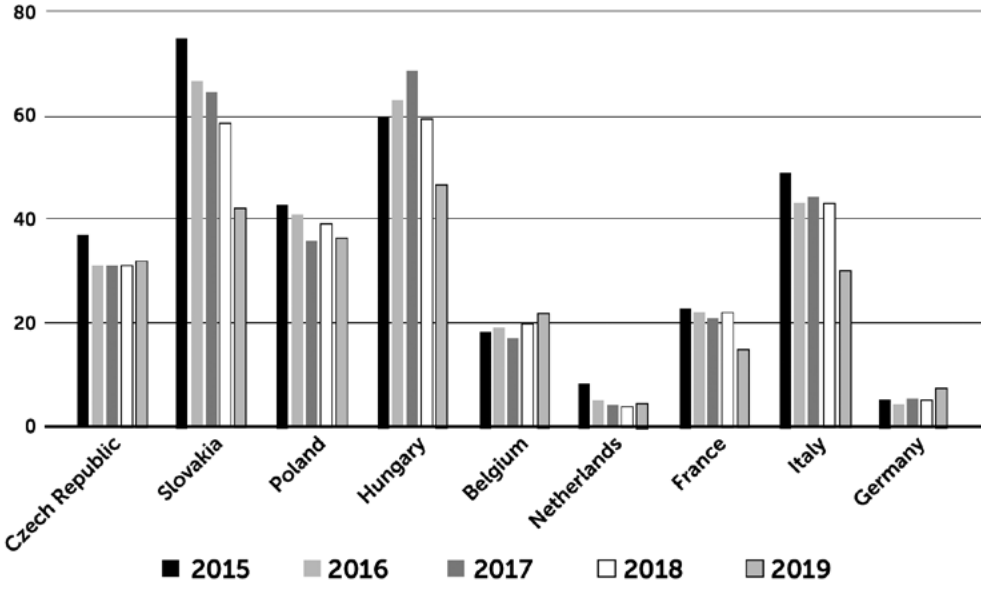
Figure 1: Gross Domestic Product per capita (PPS) annually



Source: Eurostat (2022)

Note: Current prices in EUR, purchasing power standard (PPS, from 2020) per capita

Figure 2: Global Competitiveness Index (GCI) ranking



Source: World Economic Forum (2015–2019)

Table 1: Foreign Direct Investments restrictiveness index 2020

Country	wind	hydro	solar	biofuels
Czech Republic	0.90%	4.20%	2.80%	6.40%
Slovak Republic	0%	16.70%	2.30%	5.80%
Poland	10.00%	1.90%	1.20%	5.30%
Hungary	1.90%	0.70%	7.10%	6.20%
Latvia	3.10%	45.50%	0.10%	15.10%
Estonia	14.20%	0.50%	2.10%	31.10%
Lithuania	29.20%	20.30%	2.40%	11.20%

Source: OECD (2020)

their competitiveness. Therefore, they are extremely sensitive toward the external environmental development.

This higher degree of openness of V4 economies may also be observed in the Foreign Direct Investments Restrictiveness Index (FDIRI) [See: Table 1]. Although the total results of the index do not establish a direct dividing line between Western and Eastern Member States, when looking at the individual segments the conclusions are already different. Specifically, in the primary sector, the V4 countries are close to zero (which represents no restrictions on FDI) or perform lower than most Western countries. Of these, France and Italy are the most restrictive with 0.155 and 0.13 respectively.

In the sector that will be especially formed by the environmental transformation – namely, transport – the V4 countries are also showing low barriers for the flow of FDI. On the other hand, four of the top five most restricted countries from the compared set of states are then the founding EU states (Germany and Italy), with 0.2 in transport, followed by France with 0.15.

> RENEWABLES ARE SUPPOSED TO SERVE AS THE BACKBONE OF THE GREEN TRANSFORMATION, WHILE NUCLEAR ENERGY IS MORE OF A BACKSTOP

Table 2: Share of renewable energy on production of electricity in the Visegrad four and Baltic states (2020)

Which of the following do you think is the most positive result of the EU? MAX 3 ANSWERS									
	Total	Primary sector	Trans-port	Media	Tel-ecoms	Financial services	Business services	Manu-factur-ing	Electric-ity
Czech Republic	0.01	0.025	0.075	0	0	0.01	0	0	0
Slovakia	0.049	0	0.075	0	0	0.002	0	0	0
Poland	0.072	0.05	0.092	0	0.075	0.003	0	0	0
Hungary	0.029	0	0.167	0.298	0	0.005	0	0	0
Belgium	0.04	0.035	0.114	0.023	0.023	0.024	0.248	0.023	0.023
Netherlands	0.015	0.062	0.083	0	0	0.002	0	0	0
France	0.045	0.155	0.15	0.048	0	0.054	0.003	0	0
Italy	0.052	0.13	0.2	0.363	0	0.018	0	0	0
Germany	0.023	0.069	0.2	0.025	0	0.005	0	0	0

Source: Eurostat (2020)

CEE SIBLINGS: THE FANTASTIC FOUR FROM VISEGRAD VERSUS THE TRIUMVIRATE FROM THE BALTICS

It is also crucial to show and stress that in one of the key areas of the Green Deal (energy), there are relatively large differences even among the CEE countries themselves. A comparison between the V4 countries and the three Baltic states (Latvia, Estonia, and Lithuania) is, therefore, necessary. Particularly important is the different structure as well as the level of use of renewables compared to nuclear energy. Renewables are supposed to serve as the backbone of the green transformation, while nuclear energy is more of a backstop.

In the CEE region, the Baltic states are undoubtedly closest[8] to meeting the European Commission's renewable energy requirements. Due to their local conditions, they have an excellent basis for the wind and hydro power plants, which, unfortunately, is not the case with the Visegrad-group countries, as they have no access to the sea and, therefore, cannot use it to build hydroelectric and offshore wind farms. Moreover, it is also a much less industrialized region than the V4 so they

[8] European Environment Agency (2022) *Progress Towards Renewable Energy Sources Targets*, by Country. Available [online]: https://www.eea.europa.eu/data-and-maps/daviz/countries-breakdown-actual-res-progress-11#tab-chart_2

have lower energy consumption, and reducing emissions is more accessible to them[9].

As evidenced by the Eurostat data, the smaller, coastal Baltic states can heavily benefit from their seaside location for the construction and use of onshore and potential offshore energy [See: Table 2]. In Estonia, the current network of onshore wind farms reaches a capacity of 320 MW, with plans to build an additional network with a capacity of 1490 MW based on the offshore wind. In Lithuania, the capacity of the current wind farms reaches 671 MW, an already huge network, which will be extended with planned investments for the 700 MW of offshore wind and 100 MW of onshore wind[10].

The fact that most of the larger projects in these countries are being developed purely on a commercial basis without state subsidies also needs to be stressed, as it underlines the profitability and suitability of this energy source for the Baltics' geo-climatic conditions. It seems that, in appropriate situations, even the market naturally selects renewable options.

Since offshore wind farms perform much more efficiently and do not suffer from landscape costs, they are preferred over onshore plants. However, offshores can be also described as a luxury that is unavailable to most of the V4 states. The capacity of the current network could only be extended by the onshore wind energy, which is, however, not as efficient and brings with it additional landscape costs[11]. With demands to encourage more afforestation and maintain biodiversity in the landscape, an activity that can potentially take up land seems rather counterproductive and in contradiction with the overall Green Deal philosophy.

> IN THE CEE REGION, THE BALTIC STATES ARE UNDOUBTEDLY CLOSEST TO MEETING THE EUROPEAN COMMISSION'S RENEWABLE ENERGY REQUIREMENTS

As the landlocked states and regions of the V4 (except for Poland) do not have the opportunity to construct hydroelectric power plants like the Baltic States, they cannot draw their primary source of electricity from the power of the sea either. However, the investments made so far, as

[9] The Global Economy (2020) *Share of Manufacturing – Country Rankings*. Available [online]: https://www.theglobaleconomy.com/rankings/Share_of_manufacturing/Europe/

[10] Lithuanian Wind Power Association (2021) Lithuanian statistics. Available [online]: https://lvea.lt/en/statistics/lithuanian-statistics/

[11] Tröndle, T. (2020) "Supply-Side Options to Reduce Land Requirements of Fully Renewable Electricity in Europe", [in]: *PLoS ONE*, Vol. 15(8).

> IN APPROPRIATE SITUATIONS, EVEN THE MARKET NATURALLY SELECTS RENEWABLE OPTIONS

well as those planned, clearly show which path the V4 countries want to follow and how they want to cope with geo-climate conditions unsuitable for most renewables. Specifically, this is the nuclear power route, which already forms a significant part of the electricity production (36.9% of energy production in the Czech Republic, 53.6% in Slovakia, and 46.2% in Hungary12) in the V4 countries. Although Poland does not currently have any nuclear power plants, it is planning several investments in nuclear reactors – both large- and small-sized. Hungary and the Czech Republic are also planning Small Modular Reactors. The Visegrad countries could thus be described, together with France, as leaders in this technology.

CENTRAL BULLYING OF THE YOUNGER CEE SIBLINGS

As mentioned above, the V4 countries are much less developed economies compared to Western Europe. Their openness to foreign trade and investment, which is much higher in their case than in the rest of the European Union, helps them to catch up with the rest of the EU and develop their competitiveness.

However, the European Commission wants to introduce a single EU carbon tariff as one of the tools for international enforcement of its environmental objectives – an instrument that would make the price of goods produced in countries that do not meet the same environmental criteria as the EU equal to the difference that meeting those criteria makes for EU Member States[13]. This is a prime example of the inappropriateness of central regulation. Such a policy would have quite different effects on EU member states, as a result of the diversity of individual economies. It would be more damaging to the less economically developed CEE countries, while it would be relatively less harmful to Western economies, which are not as dependent on foreign investment due to their greater economic development.

Indeed, the introduction of a carbon tariff could easily trigger a situation similar to the Trump trade wars. Back then, foreign investors not only suspended their activities because of the policies themselves, but also because of the uncertainty created by fears of a new surge in protectionism[14].

The V4 countries, which rely on the openness of their economies to further their economic development, would certainly suffer greatly from this situation. And although the need to limit economic growth at the expense of the environment is mentioned

[12] Eurostat (2020) *What Is the Source of the Electricity We Consume?*. Available [online]: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-3b.html?lang=en

[13] European Environment Agency (2019) *The European Green Deal*. Available [online]: https://www.eea.europa.eu/policy-documents/com-2019-640-final

[14] Gunnella, V. and L. Quaglietti (2019) "The Economic Implications of Rising Protectionism: A Euro Area and Global Perspective", [in]: *ECB Economic Bulletin*, Issue 3.

> WITH DEMANDS TO ENCOURAGE MORE AFFORESTATION AND MAINTAIN BIODIVERSITY IN THE LANDSCAPE, AN ACTIVITY THAT CAN POTENTIALLY TAKE UP LAND SEEMS RATHER COUNTERPRODUCTIVE AND IN CONTRADICTION WITH THE OVERALL GREEN DEAL PHILOSOPHY

among the advocates of central environmental protection, the facts show that, in this respect, it is not a trade-off but rather a complement. Indeed, interest in environmental protection and environmental quality is on the rise in the countries that can afford to demand this so-called 'luxury good'. The eventual enforcement of the Green Deal beyond the borders of the European Union would quite probably put the CEE countries, which are already lagging behind their western neighbors in this respect, at an even greater economic disadvantage.

ALL THESE RESOURCES ARE RENEWABLE, BUT SOME ARE MORE RENEWABLE

In the energy sector, the central approach is, unfortunately, an integral part of the European Commission's plans too. In the end, however, this is just another ineffective policy that harms the CEE countries. The Commission is constantly proposing to increase the requirements for the share of renewables in gross final energy consumption, as set out in the Renewable Energy Directive. The latest proposed change is linked to the next REPowerEU energy plan and proposes an increase from 40% to 45% by 2030[15]. This is a clear tightening of the noose around the possible shape of the energy mix.

Moreover, as analyzed above, a combination of nuclear power and renewables seems to be a more sensible option for the V4 countries in view of the existing investments and their inland location. However, the European Commission's taxonomy puts nuclear energy at a significant disadvantage compared to renewables.

Undoubtedly, renewables should play an important part in the whole transformation. However, it seems that the European Commission thinks that some sources are simply more renewable. Such an attitude clearly ignores the different geoclimatic conditions of member states as well as the already existing investments in

[15] European Commission (2022) *REPowerEU: A Plan to Rapidly Reduce Dependence on Russian Fossil Fuels and Fast Forward the Green Transition*. Available [online]: https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

renewables, which have been made by the local governments in accordance with local characteristics.

FROM A ZERO-EMISSION TO CARBON-NEUTRAL ECONOMY

Central regulation simply does not seem to be the most effective option when it comes to environmental protection. This statement is supported by both the existing literature[16] and the analysis presented above. The way to decentralize this initially centralized plan, at least partially, and to bring it closer to the different local geo-climatic and institutional conditions of the member states is to change the objectives pursued.

The Green Deal for Europe sets an ambitious target to reduce net greenhouse gas emissions by 55% below 1990 levels by 2030, with the ultimate goal of making the European Union a zero-emission economy by 2050. The European Commission wants to achieve this goal through reforms in the areas of energy, transport, and climate, but also taxation and public investment. Within the EU recovery package, there is a target of spending 37% of the EUR 750 billion NextGenerationEU recovery fund on Green Deal objectives, and the intention to raise 30% of the NextGenerationEU budget through green bonds. Such unprecedented public spending and reforms are defended by the Commission as necessary to combat negative externalities that harm society as a whole, but also future generations. For the climate and this planet are said to be shared across time.

This assertion would not even need to be questioned if, in its planned solution, the European Commission also took into account the differences in the economies and developments of its individual member states. It commits this ignorance at the very outset, where it sets targets[17] that can then logically only be achieved through central regulation and dirigisme. Climate protection does not require such drastic restrictions. All that is needed to halt climate change is carbon neutrality, which must certainly not be confused with a complete reduction in the production of greenhouse gasses. On the contrary, carbon neutrality is compatible with the production of a certain amount of emissions and, therefore, the existence of a certain (although very limited) number of fossil fuel power stations (whether gas or coal ones), but these power stations must operate with sufficiently efficient filters to keep emissions to a minimum. The remaining emissions will

> A COMBINATION OF NUCLEAR POWER AND RENEWABLES SEEMS TO BE A MORE SENSIBLE OPTION FOR THE V4 COUNTRIES

[16] Hayek, F. A. (1946) "The Use of Knowledge in Society", [in]: *The American Economic Review*, Vol. 35(4), pp. 519-530. See also: Ostrom, E. (2015) *Governing the Commons*, Cambridge: Cambridge University Press.

[17] All the specific targets for member states have not yet been set and can be expected to differ in some respects. However, the European Commission is already influencing this flexibility quite a lot – for example, with its position on the nuclear energy.

> CENTRAL REGULATION SIMPLY DOES NOT SEEM TO BE THE MOST EFFECTIVE OPTION WHEN IT COMES TO ENVIRONMENTAL PROTECTION

then be offset by the planting of new trees, which act as a natural sink for greenhouse gasses[18].

Moving from a Pigou-style approach to climate change to a Coas-style approach would then mean that it is not necessary to ban fossil fuels to protect the environment – their use only needs to be sufficiently compensated. Member states would be allowed to retain part of the network of coal-fired power stations (on which many of them still rely for energy production), but only if they are equipped with sufficiently efficient filters and technologies to limit greenhouse gasses as much as possible. In this area, it would certainly be necessary to invest a certain proportion of the transformation expenditure in research into these technologies, which is forbidden in the current central form of European climate protection plans.

[18] https://climate.selectra.com/en/news/co2-tree

However, the retention of some coal-fired power stations and, as a consequence, the retention of some carbon emissions would still need to be compensated for. This can be aided by, specifically, planting an equivalent amount of trees and greenery.

CREATING A MARKET FOR REFORESTATION PERMITS

As may be assumed, the tree compensatory measures would not necessarily be mediated directly by those emitting states. The creation of a market with certain reforestation vouchers/permits (similar to emission allowances) could serve this purpose. Each state or entity that runs a reforestation operation and plants a certain amount of trees would receive an equivalent amount of reforestation vouchers. These could then be traded on the open market and sold to the states that wished to retain a certain amount of coal-fired energy production.

Deforestation, on the other hand, would only be possible under the condition of owning emission permits, as this process *de facto* releases CO2 into the atmosphere. This would then result in reforestation mainly in member states where this activity is least costly. The vouchers would then be demanded mainly by entities from countries where coal power is still clearly a cost-benefit efficient option in energy production (at the same price as for emission allowances).

This solution would then be able to take full advantage of different local conditions and also make the green transformation more flexible and less costly for the eastern states. Of course, there would be significant economic costs here too, but they would fall more evenly on the states and would also be much more variable and not fixed as in a centralized version.

MAKING THE TAXONOMY REDUNDANT

Given the introduction of a market in reforestation allowances, the current EU energy taxonomy, which *de facto* determines the future spread of different energy sources by favoring certain sources for both public and private investment[19], would then become redundant and be completely replaced by this mechanism. Indeed, the percentage of coal-fired power plants in the national energy mix would be determined by the newly created market, not by central European regulation. The amount of renewable energy would then also depend on this figure.

A key condition for the success of this plan should also be the end of the irrational resistance to nuclear energy, which is represented especially in the above-mentioned taxonomy. Combined with the new conditions for fossil fuels and renewables, member states would then be able to draw on a wide range of options in the transition, making their decision-making more flexible.

KEYHOLE SOLUTIONS FOR A FREER AND GREENER FUTURE

Even though the Green Deal is certainly not the most effective solution for the protection of nature (nor for the development of a free society), it is already in motion and cannot simply be abandoned. Given the current environmental and economical paradigm and political preferences, it is also unlikely that the above proposed decentralized version would be adopted. In order to shift the Overton window and at least partially change the form of the Green Deal and thus mitigate its negative consequences, the following proposed keyhole solutions could help:

> ALL THAT IS NEEDED TO HALT CLIMATE CHANGE IS CARBON NEUTRALITY, WHICH MUST CERTAINLY NOT BE CONFUSED WITH A COMPLETE REDUCTION IN THE PRODUCTION OF GREENHOUSE GASSES

- **Pro-nuclear changes in taxonomy** – Although the European Parliament has recently approved a version of the taxonomy that designates nuclear energy as a transitional renewable resource and allows investment in the upgrade of second-generation reactors until 2040, as well as investment in the construction of third-generation reactors that receive construction permits until 2045, it also obliges member states to build their own nuclear waste repositories by 2050. However, in the case of the Czech Republic, Green Taxonomy would only allow building three new nuclear sites with a capacity of 4,400 MW, which is not even half the capacity of the coal-fired plants (10,800 MW) that are planned to be shut down. The

[19] https://climate-adapt.eea.europa.eu/metadata/publications/taxonomy-final-report-of-the-technical-expert-group-on-sustainable-finance

> GREEN TAXONOMY WOULD ONLY ALLOW BUILDING THREE NEW NUCLEAR SITES WITH A CAPACITY OF 4,400 MW, WHICH IS NOT EVEN HALF THE CAPACITY OF THE COAL-FIRED PLANTS (10,800 MW) THAT ARE PLANNED TO BE SHUT DOWN

taxonomy does not limit investment in fourth-generation reactors that do not produce nuclear waste, but these are virtually non-existent today and their development is estimated to take another 20-30 years.

The first problem with this approach is, undoubtedly, the reliance on non-existent technology. Although the European Commission wants to create an incentive to invest in research into these new technologies, this incentive can work without restrictions for the construction of third-generation reactors. For example, a special fund could be created for this purpose, to which companies involved in the construction of third-generation reactors would be required to contribute. This would be a form of environmental tax to encourage the use of a substitute – a new technology. While this is not an optimal situation, it is still a comparatively better alternative than cutting off support for construction altogether.

An equally important issue is the requirement for a spent fuel repository by 2050 for every country using nuclear energy. However, some states that rely or intend to rely heavily on nuclear power do not yet have such an infrastructure and it would take around thirty to forty years to build it. It is then the responsibility of the state to build the repository, but public choice theory teaches us that governments are influenced by the political cycle and can therefore easily back out of their commitments[20].

The alternative of leasing existing storage sites to other member states could mitigate these negative effects and, at the same time, maintain the desired outcome. The states without existing infrastructure would thus benefit from the comparative advantages of other countries with existing repositories.

Of course, this approach runs the risk of resistance to nuclear waste in the importing states, but even though this solution is not without risk, it does at least allow it to be shared more widely among more stakeholders.

[20] Buchanan, J.M. and G. Tullock (1962) *The Calculus of Consent: Logical Foundations for Constitutional Democracy*, Michigan: The University of Michigan Press.

> SMALL MODULAR REACTORS (SMRS) ARE OFTEN REFERRED TO AS THE FUTURE OF (NOT ONLY NUCLEAR) ENERGY

- **Stable legal framework for the development of the small modular reactors** – Small modular reactors (SMRs) are often referred to as the future of (not only nuclear) energy. In addition to generating electricity, they can also serve as a heat source, which can be an important tool to exit Russian gas. Several European countries (such as France[21], Poland[22], and most recently the Czech Republic[23]) have already announced plans to build their first SMRs. However, due to the early stage of this technology, there is not yet a sufficient legal framework for its successful future development. For example, there is no distinction in the taxonomy between large nuclear reactors (LRs) and SMRs, even though they are diametrically opposed in terms of construction time, risks, and investment[24].

The European Commission could help the further development of SMRs in particular by taking into account their specificities in its taxonomy, where they would not be subject to the same requirements as LRs, especially in the time limits for the construction of the latest Generation III reactors. It is, on the face of it, the same technology, but with much less risk. In this area, but also in other safety and administrative regulations, the principle of 'graduation' could apply. A small yacht also does not have to meet the same safety criteria as a large ocean liner, although both can sink.

Harmonization of requirements (which is already set into motion) could be another tool for the smooth implementation of SMRs across Europe. When a particular technology is licensed in one country, the surveillance in another country may no longer require everything and take over things that have already been met, nor will it be able to prohibit something that has already been approved in another country. This step would help countries that are just considering building SMRs skip the lengthy process of ensuring safety. Instead, they will adopt the benchmarks of the other member states that have already decided to invest in SMRs and thus benefit from another of the advantages of the common market. Ideally, nuclear power plants would

[21] Zissler, R. (2022) "France's New Nuclear Power Plans and Techno-Economic Difficulties", [in]: *Renewable Energy Institute*. Available [online]: https://www.renewable-ei.org/en/activities/column/REupdate/20220128.php

[22] https://www.usnews.com/news/technology/articles/2022-07-08/polands-kghm-says-small-reactors-may-cost-2-billion-to-build

[23] Seznam.cz (2022) *Nový český plán: jaderná elektrárna do každého kraje*. Available [online]: https://www.seznamzpravy.cz/clanek/domaci-novy-cesky-plan-jaderna-elektrarna-do-kazdeho-kraje-206981 [in Czech]

[24] https://www.iaea.org/newscenter/news/what-are-small-modular-reactors-smrs

> EUROPE IS CURRENTLY IN AN ENERGY CRISIS, AND, AT THE SAME TIME, IT IS ALSO FACING A SHORTAGE OF KEY RAW MATERIALS

then not have to be built tediously, like airports, but smoothly (in series) and quickly (like airplanes).

- **Equating waste to energy with circular waste treatment** – EU waste management legislation sets requirements for member states to recycle 65% of waste and to landfill only 10% of waste generated. In the EU waste hierarchy, prevention and reuse are at the top of the agenda[25] – an effort supported, among others, by a ban on single-use plastics. Next in the hierarchy is recycling, followed by waste-to-energy management.

  However, the European Commission has long supported only one option for reducing landfill – the circular economy, which has in common with waste-to-energy the fact that both of these alternatives convert the raw material already used. Europe is currently in an energy crisis, and, at the same time, it is also facing a shortage of key raw materials. The choice between these two options is a clear trade-off between energy production and raw material extraction. The Commission is committing a fatal conceit if it claims to know which of these options is more efficient for the member states. Only the free market can make this choice.

  In order to overcome the energy crisis more quickly and to achieve a successful green transformation, the European Commission should, therefore, put recycling and waste-to-energy on equal footing in terms of legislation and subsidies for the necessary infrastructure. Not only would this set free the hands of many member states in the way of reducing landfill, but it would also enable individual regions and municipalities to strengthen their energy production through the waste-to-energy system and to become independent from fossil fuels. Some regions may still prefer the circular model, but this choice should be made at the national level

CONCLUSIONS

Environmental protection should be viewed with the utmost respect. It can be considered as a legitimate endeavor and, after all, one of the benefits of European economic prosperity. It must not be forgotten, however, that the same economic laws that we can observe in our daily lives apply in this case, too.

Eastern European countries are economically underdeveloped compared to the western countries. This fact makes the green transformation much more challenging for them and, if implemented incorrectly, could severely damage them

[25] https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en

economically. A rethinking of the environmental philosophy from a Pigouvian to a Coasian approach would mean introducing more flexibility in the implementation of the Green Deal itself. Introducing flexibility into the implementation of the transformation and a more liberal approach to nuclear energy could then help the CEE countries in particular to close the gap between them and the rest of the EU on green transformation.

The solutions proposed above, with humility in the face of these realities, seek to propose a path of compromise that takes into account the current requirements and paradigms in environmental protection. At the same time, these are partly guided by the economic principles of our world that should not be ignored.

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FILIP
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